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**Title: JP10064548A2: NONAQUEOUS ELECTROLYTE SECONDARY BATTERY**

**Derwent Title:** Non-aqueous electrolyte secondary lithium battery - has cathode which comprises compound with predetermined enthalpy of fusion and melting point and binder [\[Derwent Record\]](#)

**Country:** JP Japan  
**Kind:** A (See also: [JP3480189B2](#) )

**Inventor:** MURAOKA NORIKI;  
OZAKI YOSHIYUKI;  
KOBAYASHI SHIGEO;

**Assignee:** MATSUSHITA ELECTRIC IND CO LTD  
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**Published / Filed:** 1998-03-06 / 1996-08-23

**Application Number:** JP1996000222113

**IPC Code:** [H01M 4/62](#); [H01M 4/02](#); [H01M 10/40](#);

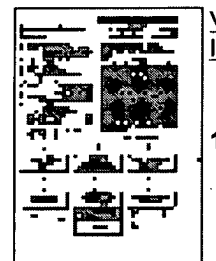
**Priority Number:** 1996-08-23 JP1996000222113

**Abstract:** PROBLEM TO BE SOLVED: To suppress temperature rising of a battery caused by short circuit by incorporating a heat absorbing material of a polymer compound having the specified melting point and heat of fusion and a binder such as styrene - butadiene rubber in a negative electrode of a nonaqueous electrolyte secondary battery.

SOLUTION: A nonaqueous electrolyte secondary battery has a positive electrode using a lithium containing composite oxide as an active material, a negative electrode comprising a carbon material capable of absorbing/releasing lithium, and a nonaqueous electrolyte. A polymer compound having a melting point of 90-130° C and a heat of fusion of 30J/g or more (such as polyethylene, polypropylene, and ethylene - ethyl acrylate - maleic anhydride copolymer) is contained in the negative electrode as a heat absorbing material, and has a globular shape of a mean particle size of 1-12µm, and the added content is 10% or less. As a binder, styrene - butadiene rubber, polyvinylidene fluoride, or polytetrafluoroethylene, etc., is contained in the negative electrode. The nonaqueous electrolyte secondary battery capable of satisfying battery characteristics and suppressing temperature rising of the battery when short circuit of the battery arose on the inside and the outside.

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PDF	Patent	Pub.Date	Inventor	Assignee	Title
	<a href="#">US6586912</a>	2003-07-01	Tsukamoto; Hisashi	Quallion LLC	<a href="#">Method and apparatus for amplitude limiting battery temperature spikes</a>

Other Abstract  
Info:

CHEMABS 128(16)194742Y CAN128(16)194742Y DERABS C98-222646 DERC98-222646

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**PATENT ABSTRACTS OF JAPAN**(21) Application number: **08222113**(51) Intl. Cl.: **H01M 4/62 H01M 4/02 H01M 10/40**(22) Application date: **23.08.96**

(30) Priority:

(43) Date of application  
publication: **06.03.98**(84) Designated contracting  
states:(71) Applicant: **MATSUSHITA ELECTRIC IN-  
LTD**(72) Inventor: **MURAOKA NORIKI  
OZAKI YOSHIYUKI  
KOBAYASHI SHIGEO**

(74) Representative:

**(54) NONAQUEOUS  
ELECTROLYTE  
SECONDARY BATTERY**

(57) Abstract:

**PROBLEM TO BE SOLVED:** To suppress temperature rising of a battery caused by short circuit by incorporating a heat absorbing material of a polymer compound having the specified melting point and heat of fusion and a binder such as styrene - butadiene rubber in a negative electrode of a nonaqueous electrolyte secondary battery.

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